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A patient perspective of pharmacist prescribing: 'crossing the specialisms-crossing the illnesses'

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Abstract

Background The drive for non-medical prescribing has progressed quickly since the late 1990s and involves a range of healthcare professionals including pharmacists. As part of a commissioned research project, this qualitative element of a larger case study focused on the views of patients of pharmacist prescribers.

Objective The aim of this study was to explore patients' perspectives of pharmacists as prescribers.

Methods Three pharmacists working as independent prescribers in the clinical areas of (i) hypertension, (ii) cardiovascular/diabetes management, (iii) anticoagulation were recruited to three case studies of pharmacist prescribing in Northern Ireland. One hundred and five patients were invited to participate in focus groups after they had been prescribed for by the pharmacist. Focus groups took place between November 2010 and March 2011 (ethical/governance approvals granted) were audio taped, transcribed verbatim, read independently by two authors and analysed using constant comparative analysis.

Results Thirty-four patients agreed to participate across seven focus groups. Analysis revealed the emergence of one overarching theme: team approach to patient care. A number of subthemes related to the role of the pharmacist, the role of the doctor and patient benefits. There was an overwhelming lack of awareness of pharmacist prescribing. Patients discussed the importance of a multidisciplinary approach to their care and recognized limitations of the current model of prescribing.

Conclusion Patients were positive about pharmacist prescribing and felt that a team approach to their care was the ideal model especially when treating those with more complex conditions. Despite positive attitudes, there was a general lack of awareness of this new mode of practice.

Introduction

The concept of non-medical prescribing (NMP) had its genesis in the Cumberlege Report in 1986, which suggested that community nurses should be able to prescribe some medication as part of routine patient care.[1] Historically, prescribing had been solely the domain of physicians,[2] the establishment of the Advisory Group on Nurse Prescribing in 1987 led to two reviews in prescribing, known as the 'Crown Reports'. The final Crown Report recommended extending prescribing authority to non-medical professionals, including pharmacists, and pointed to the potential benefits of patient care, better use of patients', nurses' and doctors' time and clearer lines of responsibility.[1] The Review of Prescribing, Supply and Administration of Medicines, Final Report (1999) considered how the extension of prescribing rights would impact on clinical outcomes, convenience for healthcare users, professional relationships and costs.[3] It was anticipated that the extension of prescribing rights would offer patients more timely access to their medication[2] and lead to a more convenient, 'seamless' high-quality service for users.[2,4] These benefits were re-iterated in the Department of Health report 'Pharmacy in the Future – Implementing the NHS Plan'.[5] In the United Kingdom (UK), two models of pharmacist prescribing exist: supplementary and independent prescribing. These models mainly differ in the extent of responsibility delegated to the pharmacist prescriber with the independent model being the most autonomous.[2] Supplementary prescribing was introduced in 2003 and is defined as 'a voluntary partnership between the independent prescriber (a doctor or dentist) and a supplementary prescriber to implement an agreed patient-specific formal written protocol[2] called a Clinical Management Plan (CMP), with the patient's agreement'.[6,7] The level of the independent prescriber's (doctor or dentist) confidence would usually determine the level of authority delegated to the supplementary prescriber (pharmacist).[2] Over time, supplementary prescribing was expected to reduce doctors' workloads, freeing up their time to concentrate on patients with more complicated conditions and complex treatments. Legal changes were enacted in 2006 to allow pharmacists and nurses to qualify as independent prescribers.[1] Independent prescribing is defined as 'prescribing by a practitioner (e.g. doctor, dentist, nurse, pharmacist) responsible and accountable for the assessment of patients with undiagnosed or diagnosed conditions and for decisions about the clinical management required, including prescribing'.[8] This allowed independent prescribing pharmacists to prescribe any medication from the British National Formulary (BNF), except controlled drugs and unlicensed medicines, within the limits of their professional competence.[2,8]

An evaluation of supplementary prescribing in nursing and pharmacy in England found that supplementary prescribing was safe and acceptable to patients and doctors, whilst offering nurses and pharmacists enhanced job satisfaction.[9] This evaluation concluded that supplementary prescribing consolidated nurses' existing practice but was an innovation in working practice for pharmacists, although NMP remained at very low levels and a lack of understanding and awareness of supplementary prescribing was evident amongst doctors and patients.[9] A limited number of studies have explored patient views on the role of pharmacists in prescribing; these studies found positive attitudes and that patients were generally satisfied with and confident in the skills of pharmacist prescribers.[10,11] In a recent systematic review assessing the contribution of prescribing in primary care by nurses and professionals allied to medicine, most studies reported that NMP was widely accepted and viewed positively by both patients and professionals.[12] To date, however, there has been little information on the impact of pharmacist prescribing (especially independent prescribing) on patient outcomes, and relatively little data (qualitative) has been published on patients' views and perceptions on the role of pharmacists in prescribing. The aim of this study was to explore these

issues from the perspective of patients who had been prescribed for by pharmacists in three different clinical settings in NI.

Methods

All ethical and governance approvals were obtained in advance of the study. Three pharmacists working as independent prescribers in the clinical areas of (i) hypertension and hypercholesterolemia in a primary care setting, (ii) cardiovascular and diabetes management in a secondary care (outpatient) setting and (iii) anticoagulation in a secondary care (outpatient) setting were recruited to case studies of pharmacist prescribing. These pharmacists had been recruited from a larger study on pharmacist prescribing[13] and had been selected because of their areas of prescribing practice and sector of practice. Patients from these pharmacists' clinics were recruited to participate in focus groups. Focus group methodology was selected to stimulate open conversation allowing for the expression of ideas and common experiences (in this case, patient views on pharmacist prescribing), which may not have been expressed in a one-to-one interview situation.[14] Focus groups were also a more cost-effective and efficient means of accessing the views of a large number of individuals.[15] All patients for whom each pharmacist prescribed (on at least one occasion), who were over the age of 18 years and able to give written informed consent were eligible to participate. One hundred and five patients were invited to take part in focus groups after they had been prescribed for by their pharmacist. A two-stage recruitment/consent process was undertaken. Patients were invited by their usual prescribing pharmacist after the pharmacist prescribed for them. The participating pharmacist took consent in stage one which allowed patient contact details to be passed on to the researcher (LMcC). The researcher rang patients 3 days later to see whether they wished to participate in the focus groups and directed them to complete the consent form. Due to the geographical spread of case study sites and because patients were under the care of three different pharmacists, a decision was made not to mix groups of patients of the three pharmacists recruited to this study. Each focus group took place between November 2010 and March 2011 at the site at which the pharmacist prescribed and was facilitated by the researcher (a non-pharmacist who had previous experience in focus group methodology); anonymity was assured. The discussion was based around a topic guide developed from a review of the literature, discussion between the research team and findings from an earlier study in NI[13] (Table 1 provides an abridged version).

Data collection and analysis

All focus group discussions were digitally recorded and transcribed verbatim. Each transcript was checked against the original digital recording for accuracy. The data were coded, and initial themes were identified. All transcribed data were entered into the QSR NVivo® (QSR International, Victoria, Australia) computer software package (Version 8), which enabled complex organization, indexing, sorting and retrieval of qualitative data. Constant comparative analysis was performed, that is, transcripts were analysed as focus groups progressed, so that emergent themes and theories could be tested and included in further focus groups. All analysis (identification of themes and coding) was carried out independently by the research fellow (LMcC). All transcripts were then analysed independently by a second researcher (CH) to ensure agreement was reached on all coding and themes identified.

Table 1 Topic areas for patient focus groups

Interview topic area(s)
How patients view a pharmacist in the prescribing role (as opposed to a GP/consultant)
Patients' views and experiences of pharmacist prescribing
Perceived advantages/disadvantages of pharmacist prescribing
Patients' satisfaction with pharmacist prescribing
How pharmacist prescribing has impacted on patient care
Future of pharmacist prescribing

GP, general practitioner.

Findings

Thirty-four patients agreed to participate, distributed over seven groups. All patients were attending a pharmacist independent prescriber. Patients 1–11 attended a hypertension and hypercholesterolemia clinic in primary care. Patients 12–25 attended a cardiovascular and diabetes management clinic in secondary care and patients 26–34 were patients of an anticoagulation clinic in a secondary care setting. Table 2 summarizes the demographic information pertaining to the participants.

Main themes from patient focus groups

Analysis of the data revealed the emergence of one overarching theme of team approach to patient care, which was common throughout the transcripts and was evident in the three subthemes of patient benefits, the pharmacist's role and the doctor's role. There was an overwhelming lack of awareness of pharmacist prescribing (Fig. 1).

Team approach to care

Patients discussed the importance of having a multidisciplinary approach to their care, especially those with more complex medical conditions and multimorbidity. Patients often valued a second opinion and felt that both doctors and pharmacists had an important role to play in their care. They felt that the doctor and pharmacist had varied yet complementary skills, all of which contributed to their overall care and recognized that each healthcare professional should play to their individual strengths (diagnosis [doctor] and medicines management [pharmacist]). This multidisciplinary approach was viewed as the ideal model.

> Each to their own – each has their own valuable input. My confidence in a pharmacist would be that I think they would understand the content of each medication and the effect of each medication (P13, SC)

> If you had really really serious, complicated illnesses that you know, multiple illnesses that all complicated each other and things, you may also want – you would certainly want medical and pharmacological advice (P8, PC)

Patient benefits. The majority of participants could not think of any disadvantages to having

Table 2 Demographic characteristics of focus group participants

Focus groups	Case study site 1	Case study site 2	Case study site 3	Total
Groups convened				
Clinical area(s)	Hypertension, hypercholesterolemia	Cardiovascular and diabetes management.	Anticoagulation	–
Setting	GP surgery	Hospital inpatient and outpatient	Hospital outpatient	
No. of groups	2	3	2	7
Date convened	FG 1: 19/11/2010 FG 2: 26/01/2011	FG 1: 17/11/2010 FG 2: 23/11/2010 FG 3: 21/01/2011	FG 1: 11/01/2011 FG 2: 04/03/2011	–
No. participating per group	FG 1: $n = 6$ FG 2: $n = 5$	FG 1: $n = 3$ FG 2: $n = 7$ FG 3: $n = 4$	FG 1: $n = 4$ FG 2: $n = 5$	–
Total participants	11 (P1–P11, PC)	14 (P12–P25, SC)	9 (P26–P34, SC)	34
Gender				
Male	FG 1: $n = 2$ FG 2: $n = 3$	FG 1: $n = 2$ FG 2: $n = 5$ FG 3: $n = 2$	FG 1: $n = 3$ FG 2: $n = 3$	20
Female	FG 1: $n = 4$ FG 2: $n = 2$	FG 1: $n = 1$ FG 2: $n = 2$ FG 3: $n = 2$	FG 1: $n = 1$ FG 2: $n = 2$	14

GP, general practitioner; PC, primary care; SC, secondary care.

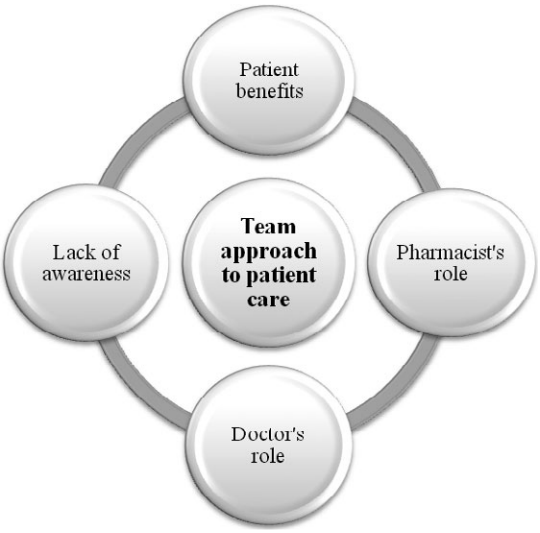

Figure 1 Key themes emerging from analysis.

a pharmacist prescribe for them, with the exception of concerns over responsibility and being limited to one area. Patients were generally very positive about this form of practice.

> I find the pharmacist really really helpful and especially the one I saw in the ward was exceedingly helpful and reassured me a lot (P12, SC)

> The (anticoagulant) service is brilliant now I think (P31, SC)

A number of patients recognized the limitations of a pharmacist specializing in only one clinical area in the current model of prescribing. There were some concerns apparent in relation to 'too much responsibility' for a pharmacist prescriber.

> My one (disadvantage) would be crossing the specialisms – crossing the illnesses. My experience here is in relation to diabetic management, but I would also like one that is appreciative of my overall (health) (P13, SC)

> Yeah and not only that, it would put an awful burden – a big responsibility (if they were prescribing other medications) (P28, SC)

Patients felt that pharmacists were approachable, thorough in the level of information provided, easy to talk to and non-judgemental. One of the major advantages of a pharmacist prescriber was the additional time (up to 15 min more for an initial visit compared to a doctor consultation) allowed for consultations, which meant pharmacists had time to listen to any patient concerns. Patients valued this and often felt rushed in a doctor consultation.

> I found it very relaxing. I could communicate – no fault to the doctor but I felt more at ease with pharmacist (P2, PC)

> For a while I was putting on weight and she (the pharmacist prescriber) never said a word about it. All she said was I think we'll put you on this and try and control your weight (P21, SC)

> Pharmacology is their (pharmacist's) specialist area and therefore if anything, they're going to be just as well informed as the medical profession on drugs and as you say they maybe have more time to explain you know, side-effects (P8, PC)

Patients had an appreciation for the role of follow-up and felt it was an advantage that the pharmacist was going to be 'checking-up' up on them. Whilst patients did not mind if a doctor or pharmacist prescribed for them, they appreciated the regular follow-up with the pharmacist.

> That's what makes it for me (the follow-up) is that you know that whatever you're taking is going to be checked in a month or 6 weeks or whatever we have arranged (P1, PC)

> I don't think I mind which one it is (prescribes). They are both medical professionals so I have confidence in both of them (P15, SC)

A number of patients perceived that their medical condition had improved since they started seeing the pharmacist prescriber.

> I was high risk. Family background was all – high blood pressure, heart trouble and my weight was high and inside a year I lost over a stone and got my blood pressure well down and my cholesterol so I'm well pleased (P5, PC)

> It's reassuring is the word I would use and she has also helped me achieve or reach targets that I may not have been able to do on my own or through a GP or a consultant (P13, SC)

Pharmacist's role. Patients were very positive about pharmacist prescribing and were of the view that pharmacists had a greater knowledge of drugs, interactions and side-effects than doctors as this was considered their area of expertise.

> The pharmacist knows a heck of a lot more about the drugs than the doctor does (P3, PC)

> Sometimes when I have said to my own GP look this drug it said it doesn't go with this or whatever, it doesn't give you much confidence when your GP reaches round and gets this large book and starts to leaf through to find it, so they obviously have to refer to that to find out, you know whereas a pharmacist, well in my experience, the time I spent – didn't have to read any book. (The pharmacist) knew exactly what I was talking about. So that's impressive (P12, SC)

> Excellent idea (pharmacist prescribing), because pharmacists understand drugs – that's their speciality (P20, SC)

> I would say that the pharmacist is a great help because they are the drug people after all (P31, SC)

Doctor's role. Although participants cited many positive aspects of pharmacist prescribing in their area of specialism, they wanted to consult their doctor for the initial diagnosis or if a more 'serious' or acute medical problem arose. They saw the doctor as the primary diagnostician.

> I don't know whether it's just tradition, but I think that the doctor would be better at the diagnostic element of it, but whereas the pharmacist does know the medicines better (P24, SC)

> Probably you would want the initial consultation with the doctor to make sure the diagnosis was right to begin with… if you've a chronic condition, like something like high blood pressure… I think that's where the pharmacist really comes into it all sort of modifying and tweaking your medication to make it suit you (P8, PC)

Where a pharmacist's approach was medication-focused, patients felt that doctors were better equipped to deal with clinical complexity, as they looked at the 'big picture' and had an overview of all illnesses and how they were interlinked.

> Well with the pharmacist you're going about your blood pressure but if you're going about something else that he didn't know about you would have to see the doctor (P4, PC)

Lack of awareness. There was an overwhelming lack of awareness that a pharmacist could prescribe (before patients attended the clinic). Patients were unaware of the additional training requirements required to become a pharmacist prescriber and when the researcher explained the extent of training involved, patients were often reassured by this.

> You wouldn't imagine that (additional training) is going on behind the scenes, so that to me is saying there's a bit more excellence within the model (P13, SC)

> I never had any realization that a pharmacist could be involved in that (prescribing) (P9, PC)

In a number of cases, patients felt that they has been 'sent' to the pharmacist prescriber and had no realization what the pharmacist's role in their care would entail.

> At the beginning I thought it was unusual (pharmacist prescribing) – their role wasn't explained to me. It was just 'I'm sending you to see the pharmacist (P13, SC)

> I think most of us here were sent to the pharmacist. We didn't say I want to see a pharmacist. We were sent (P28, SC)

Discussion

This paper represents the views of patients in relation to pharmacist independent prescribing in NI. Patients were very positive about having a pharmacist prescribe for them as they felt a pharmacist's specialism was in their expert knowledge of medicines. A multidisciplinary team approach to care was viewed as the ideal model, with patients recognizing that they

would want to see their doctor for their initial diagnosis or for more complex conditions. Slight tensions were apparent in relation to a pharmacist being limited to prescribing in one clinical area. Patients' knowledge of supplementary prescribing in the study by Bissell and colleagues was grounded in an understanding that this occurred in the narrow clinical speciality of the nurse or pharmacist and many patients drew a clear distinction between this and the more general clinical knowledge and work of doctors.[9] There was an overwhelming lack of awareness of pharmacist prescribing, the remit of pharmacist prescribers and the training requirements to become a prescriber. Presently, it is unlikely that this holistic multidisciplinary team approach will be fully realized without an increase in awareness of pharmacist prescribing. Few patients in this present study discussed any disadvantages of this form of practice; however, there were some concerns over 'too much responsibility' for pharmacist prescribers.

In this present study, a number of benefits of pharmacist prescribing were discussed by patients such as increased time for consultations, in-depth information provided in relation to their medicines and a greater feeling of control and ownership of their medical condition. As pharmacists specialized in one clinical area and had fewer patients to see than physicians, this may account for the longer consultations. Follow-up with the pharmacist prescriber was also appreciated, although follow-up is not uncommon with doctors, however, it was the regular nature with pharmacist prescribers that was acknowledged. A systematic review by Bhanbhro *et al.*[12] identified three studies in primary care (two nurse, one pharmacy) describing patient views which reported that NMP were effective in improving the provision of information, advice and understanding on treatment, conditions, self-care and standard of care.[16–18] Patients in this present study often felt more relaxed with pharmacists as they considered them to be helpful, with expert drug knowledge and non-judgemental as has been reported previously.[19] Whilst a report by Weiss and colleagues, did not incorporate patients' evaluation of benefits of supplementary prescribing, it proposed the following benefits: longer consultations, in-depth medicines information, improved support for medicine taking, associated improvements in clinical care and access to general health advice.[20] The findings from our focus groups support the findings from this report. A number of participants discussed how they felt their medical condition had improved since attending the pharmacist prescriber and how they had reached targets that had previously seemed unattainable. This was the perception of the patient; the authors have no evidence that this was due to the input of the pharmacist prescriber. Patients were accepting the role of pharmacists and perceived that regular follow-up may potentially play a part in improving adherence and compliance. This acceptance of pharmacist prescribing has been found in other studies of NMP.[17,21,22] In this present study, patients also felt that they were put at ease in the consultation with the pharmacist prescriber, who had time to listen to their concerns and they did not feel they were being rushed. In an evaluation of nurse and pharmacist independent prescribing in England, almost half of patients stated their condition was better controlled since being treated by their nurse or pharmacist prescriber.[23]

Pharmacist prescribers usually train and prescribe in one clinical area. However, Weiss and colleagues have argued that patients with multiple conditions may be disadvantaged in the supplementary prescribing model and may need to consult multiple prescribers for different aspect of their clinical care.[20] In this present study, it was felt that pharmacist prescribers could potentially deal with patients with multimorbidities (the coexistence of two or more chronic conditions[24]) because of their training across a number of therapeutic areas but questions were raised about pharmacists' ability in managing clinical complexity and diagnosis. Patients perceived that whilst pharmacists could manage their hypertension or diabetes, they would want to see their GP for the initial diagnosis or if they had more than one illness or a 'more serious illness' as they

believed doctors were better at managing complexity and at looking at the bigger picture. Diagnosis and treating patients with multimorbidities is not always easy to implement in practice.[21] Most pharmacist independent prescribers in the study by Latter and colleagues did not diagnose as part of their prescribing role, but worked from a diagnosis made by another.[23] Interestingly, more pharmacist than nurse independent prescribers reported confidence in prescribing for comorbidities and prescribing controlled drugs, and according to Latter *et al.*,[23] these may be areas for future expansion for pharmacists.

Multimorbidity presents challenges for the patient and the clinician, not only in terms of the process of care, but also in terms of management and risk assessment.[25] Disease-specific protocols are best suited to younger patients who have one clinical condition and who have not yet developed other diseases.[26] However, for the majority of patients, such guidelines may be clinically naive, in that they fail to take account of the reality of multimorbidity in an increasing number of patients.[26] In a study examining the prevalence and impact of chronic respiratory disease and multimorbidity in a general practice setting, O'Kelly *et al.*[27] concluded that the majority of patients with chronic respiratory disease had multimorbidity and that clinical guidelines based on single disease entities and outcomes were not always easy to implement.[27] Smith *et al.*[28] also identified a number of challenges in managing patients with multimorbidity. Clinical complexity and polypharmacy (concurrent prescribing of at least four or five drugs[29]) are major drivers of GP workload, which have to be taken into account in delivering clinical interventions to improve outcomes for patients in primary care.[24] Given the complexity in making diagnoses and choosing treatments, it seems that a broadly trained generalist with a good breadth of knowledge and time is essential.[26] A generalist needs the backup of a multidisciplinary team to improve function and care within the home or community.[26] In clinical practice, individual patients often suffer from a collection of chronic diseases, which may or may not have a common aetiology, but often require greatly differing and often incompatible management.[26] Current and future NMP models need to be viewed as part of a multidisciplinary, whole workforce approach to using prescribing to meet service need.[23] Patients in this present study recognized that the current model of pharmacist prescribing was limited in this way.

Findings from this present study appear to support the government's NMP programme[1]; patients were very positive about pharmacist prescribing in general and believed pharmacists made a valuable contribution to their overall care. Stewart *et al.*[30] found that some participants acknowledged that pharmacists may be more knowledgeable than physicians in terms of drugs, but that physicians would apply a more holistic approach to patient care. This was very apparent in this present study. Acceptability of independent prescribing to patients in England is high, as evidenced by the majority of patients reporting that they were very satisfied with their visit to their nurse or pharmacist independent prescriber.[23] Similarly, patients in NI also appeared to be very accepting of pharmacists in the prescribing role in this present study.

Despite patient support, there was an overwhelming lack of awareness of pharmacist prescribing. Participants were unaware of the additional training requirements for qualification as a pharmacist prescriber. They discussed how they were often 'sent' to the pharmacist and had no realization of what their role in their care would entail. This has been found elsewhere; participants in the study by Hobson *et al.*[19] discussed how patients had a poor understanding of the training and knowledge of pharmacists and nurses, which affected their confidence to consult a pharmacist as a prescriber. Healthcare professionals are encouraged to involve patients in decisions about their treatment and to consider patient preference; however, this can often prove challenging.[31] A patient education initiative is imperative to raise awareness of the extended roles and responsibilities of pharmacists.

Further research is also required to explore how pharmacists can effectively manage clinical complexity, multimorbidity and polypharmacy, and manage patients holistically within a team-based approach, especially within primary care. Smith *et al.*[26] noted that new approaches need to recognize the existence and complexity of multimorbidity if we are to provide balanced pragmatic and cost-effective care and address the expectations of both patients and healthcare providers.

Limitations

It was not possible to mix participants from the three case study sites due to their geographical location and because patients were under the care of three different pharmacists. If this study were to be replicated, it would be interesting to mix participants (with similar clinical areas) from the three case study sites in the focus group discussions. It was also not possible to identify those patients who had been under the care of the pharmacist in the inpatient setting. This would have provided additional insight into prescribing in NI. The number of participants recruited to this qualitative study was quite small with approximately one-third of those invited agreeing to take part. Whilst a qualitative approach was justified, and the results are transferable (the research findings can be shared and applied beyond the study setting[32] in NI), it cannot be claimed that these views are representative of all patients of pharmacist prescribers, and therefore, the findings may not be generalizable.

Conclusion

This study provides insight into patient views on pharmacist independent prescribing in three different clinical settings in both the primary and secondary care setting in NI, a previously under-researched area. This study adds to the evidence that pharmacist prescribing is widely accepted and patients positively perceive pharmacist prescribing; however, there is still a paucity of evidence in relation to clinical outcomes. Patients discussed the importance of a multidisciplinary approach to their care, especially when treating those with more complex conditions and recognized the limitations of the current model of prescribing. Multimorbidity and polypharmacy are particularly challenging for the current model of pharmacist prescribing, which usually centres on specializing in one clinical area. Future research is required to explore how pharmacists can effectively manage clinical complexity, multimorbidity and appropriate polypharmacy, and care for patients holistically within a team-based approach.

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Conflicts of interest

None.

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